

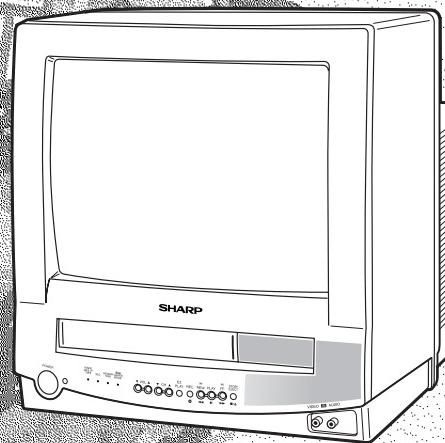


SHARP®

TV • VCR COMBINATION

MODEL
13VT-R100
13VT-R150

■ OPERATION MANUAL ■
VHS HQ HIGH QUALITY



As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. ENERGY STAR® is a U.S. registered trademark.

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Welcome to the SHARP Family. We are pleased that you are now the owner of a SHARP TV/VCR Combination – built for outstanding quality, reliability and performance.

Every SHARP TV/VCR Combination set is properly tuned and adjusted for a proper color picture and sound, and has passed through the most stringent quality control tests at the factory. We have prepared this OPERATION MANUAL so that you may adjust the picture and color to your personal viewing preference.

We sincerely hope that you receive the utmost satisfaction and enjoyment from your new SHARP TV/VCR Combination set for years to come.

Please read these instructions carefully, and keep them handy for your future reference.

IMPORTANT

To aid reporting in case of loss or theft, please record the TV's model and serial numbers in the space provided. The numbers are located at the rear of the TV.

Model No.:

Serial No.:

IMPORTANT INFORMATION

There are two important reasons for prompt warranty registration of your new SHARP TV/VCR Combination set. Use the REGISTRATION CARD packed in with the set.

FIRST – WARRANTY

This is to assure that you will immediately receive the full consumer benefit of the parts, service and labor warranty applicable to your purchase.

SECOND – CONSUMER PRODUCT SAFETY ACT

To assure that you will promptly receive any safety notification on inspection, modification or recall that SHARP may be required to give under the 1972 Consumer Product Safety Act. PLEASE READ CAREFULLY THE IMPORTANT "LIMITED WARRANTY" CLAUSE ON THE LAST PAGE.

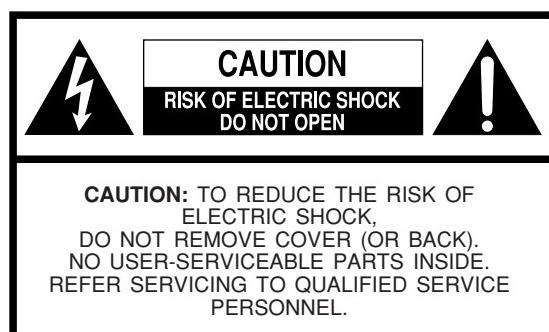
WHAT IS ENERGY STAR®

TVs and VCRs use energy both when they are on and when they are off. Americans spend more than \$1 billion a year on energy consumed by TVs and VCRs when they are not in use. The new ENERGY STAR® models will reduce that energy "leakage" by up to 75 percent. Ultimately, this will mean more than \$500 million a year in energy savings for consumers.

The energy savings will help reduce the burning of fossil fuels and the related carbon dioxide pollution that contributes to global warming. If every American family replaced their TVs and VCRs with ENERGY STAR® models, it would reduce carbon dioxide emissions by five million tons every year — equivalent to eliminating the pollution from more than one million cars.

By using ENERGY STAR® products, you will save money on your electric bills and use less energy. That makes good economic sense and it's good for our environment.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO WET LOCATIONS.



The lightning flash with arrowhead within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.

The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

WARNING OF DEW FORMATION

Whenever your TV is moved from a cold to a warm environment, it is important that you plug the unit in, turn the power on and allow it to sit for about 2 hours before attempting to play a tape.

This period will allow any dew formation to evaporate. Failure to do so may result in tape and/or video head damage.

After the 2 hours evaporation period, you may witness a "snowy" picture for the first few minutes of VCR operation. This picture noise will disappear shortly thereafter.

"Note to CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical."

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IMPORTANT INFORMATION (Continued)

WARNING - FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

PRODUCT DISPOSAL

This product utilizes a Cathode Tube (CRT) containing lead and tin lead solder.

Disposal of these materials may be regulated due to environment considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org

IMPORTANT SAFEGUARDS

CAUTION : Please read all of these instructions before you operate your television and save these instructions for later use.

Electrical energy can perform many useful functions. This unit has been engineered and manufactured to assure your personal safety. BUT IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARDS. In order not to defeat the safeguards incorporated in this equipment, observe the following basic rules for its installation, use and servicing.

1. Unplug this television equipment from the wall outlet before cleaning.
2. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use attachments not recommended by the television equipment manufacturer as they may cause hazards.
4. Do not use this television equipment near water — for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool, etc.
5. Do not place this equipment on a unstable cart, stand, or table. The television equipment may fall, causing serious injury to a child or an adult, and serious damage to the equipment. Use only with a cart or stand recommended by the manufacturer or sold with the television equipment.
6. Television equipment and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.
7. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
8. Slots and opening in the cabinet and the back or bottom are provided for ventilation. To insure reliable operation of the television equipment and to protect it from overheating, these openings should not be blocked or covered. This television equipment should not be placed in a built-in insulation such as a bookcase unless proper ventilation is provided.
9. The openings should never be covered with a cloth or other material, and the bottom openings should not be blocked by placing the television equipment on a bed, sofa, rug, or other similar surface. This television equipment should never be placed near or over a radiator or heater register.
10. This television equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your television dealer or local power company.



For television equipment designed to operate from battery power, refer to the operating instructions.

11. As a safety feature, television equipment is equipped with a 2-wire polarized plug (one plug blade bigger than the other). The 2-wire polarized plug will fit only one way into the power outlet.
If the plug does not fit in, ask your electrician to replace your obsolete outlet. Do not modify the plug and defeat this safety feature.
12. Do not allow anything to rest on the power cord. Do not locate this television equipment where the cord will be abused by persons walking on it.
13. Follow all warnings and instructions marked on the television equipment.

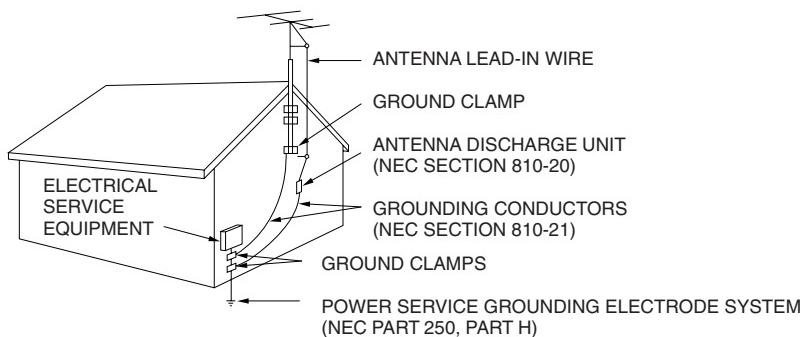
[E] 3



IMPORTANT SAFEGUARDS (Continued)

14. If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some product protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure, groundings of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA GROUNDING ACCORDING TO NATIONAL ELECTRICAL CODE



NEC- NATIONAL ELECTRICAL CODE

15. For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.
16. An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
18. Never push objects of any kind into this television equipment through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television equipment.
19. Do not attempt to service this television equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
20. Unplug this television equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the television equipment.
 - C. If the television equipment has been exposed to rain or water.
 - D. If the television equipment does not operate normally by following operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustments of other control may result in damage and will often require extensive work by a qualified technician to restore the television equipment to normal operation.
 - E. If the television equipment has been dropped or the cabinet has been damaged.
 - F. When the television equipment exhibits a distinct change in performance — this indicates a need for service.
21. Upon completion of any service or repairs to this television equipment, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.
22. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

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Supplied Accessories



Infrared Remote Control/Part Number
RRMCG1330PESA (13VT-R100)
RRMCG1330PESB (13VT-R150)



Size AA
Dry Batteries

Before Operating Your TV/VCR Combination

Location

- For normal operation, your TV should be located in an area of the room where cool adequate ventilation is provided. Do not place the back of the television set in a place where free airflow will be restricted.
- Any magnetic force may disturb the color picture. Make sure that magnets, electric clocks, toys using magnets or any other magnetic substance, such as iron are kept well away from the TV set.

Power

Your TV operates on 120 Volts, 60 Hz (normal household current) and has a polarized plug. If you are unable to insert the plug fully into the outlet, try reversing the plug. Should it fail to fit, contact an electrician. Do not defeat the safety feature of the polarized plug.

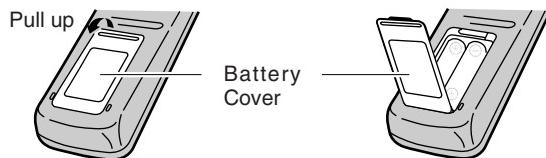
Note:

- If the set will not be used for a long period, such as during a vacation, unplug the set from the wall outlet to economize power. (If the TV set is plugged in, a slight current still flows, even with the POWER BUTTON in the OFF position.)
- Lines and other noise may appear in TV broadcast images when an FM tuner or radio is located near the TV and both radio and TV broadcasts are being received. Should such noise appear, turn off either the TV or the radio.
- If you are listening to an AM broadcast, turn the TV off. AM broadcast signals may not be received due to interference from the TV.

■ Before using the television, prepare the Remote Control

To use the remote control, insert batteries first.

Insert the batteries



- With your thumb nail, pull up the slit as indicated by the arrow to remove the back cover. Insert two batteries (size "AA"). Be sure to match the battery \oplus/\ominus terminals with the \oplus/\ominus marks inside the compartment.



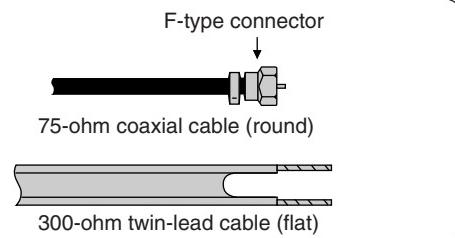
Antenna Connections

Antennas

- The antenna requirements for good color television reception are more important than those for black & white television reception. For this reason, a good quality outdoor antenna is strongly recommended.

The following is a brief explanation of the type of connections that are provided with the various antenna systems:

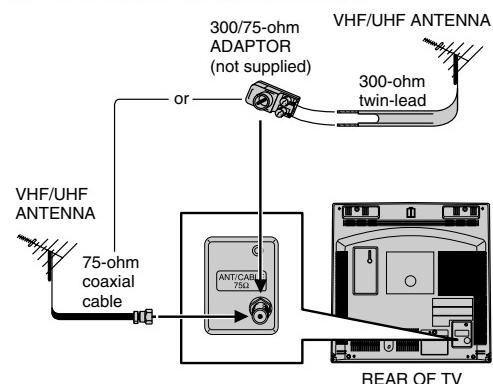
- A 75 ohm system is generally a round cable with F-type connector that can easily be attached to a terminal without tools (not supplied).
- A 300 ohm system is a flat "twin-lead" cable that can be attached to a 75 ohm terminal through a 300-75 ohm ADAPTOR (not supplied).



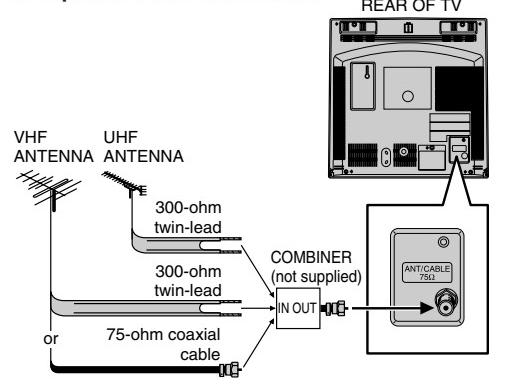
OUTDOOR ANTENNA CONNECTION

- Use one of the following two diagrams if you connect an outdoor antenna.
A: Using a VHF/UHF combination outdoor antenna.
B: Using separate VHF and/or UHF outdoor antenna.
- Connect an outdoor antenna cable lead-in to the COAXIAL CABLE CONNECTOR on the rear of the TV set.

A. Combination VHF/UHF Antennas



B. Separate VHF/UHF Antenna

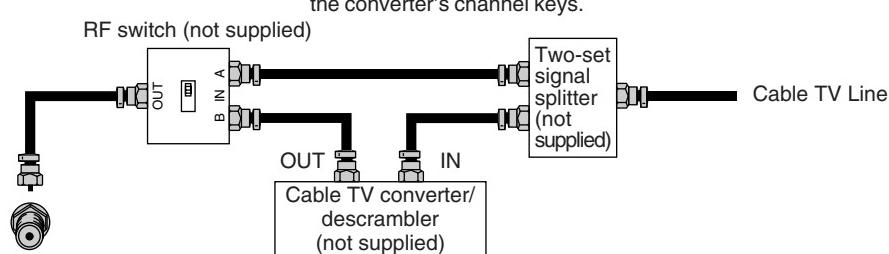


CABLE TV (CATV) CONNECTION

- A 75 ohm coaxial cable connector is built into the set for easy hookup. When connecting the 75 ohm coaxial cable to the set, screw the 75 ohm cable to the COAXIAL CABLE CONNECTOR.
- Some cable TV companies offer "premium pay channels". Since the signals of these premium pay channels are scrambled, a cable TV converter/descrambler is generally provided to the subscriber by the cable TV company. This converter/descrambler is necessary for normal viewing of the scrambled channels. (Place your TV on channel 3 or 4, typically one of these channels is used. If this is unknown, consult your cable TV company.) For more specific instructions on installing cable TV, consult your cable TV company. One possible method of utilizing the converter/descrambler provided by your cable TV company is explained below.

Please note: RF switch equipped with position A/B (not provided) is required.

"A" position on the RF switch (not supplied) : You can view all unscrambled channels using the TV's channel keys.
"B" position on the RF switch (not supplied) : You can view the scrambled channels via the converter/descrambler using the converter's channel keys.



Note:

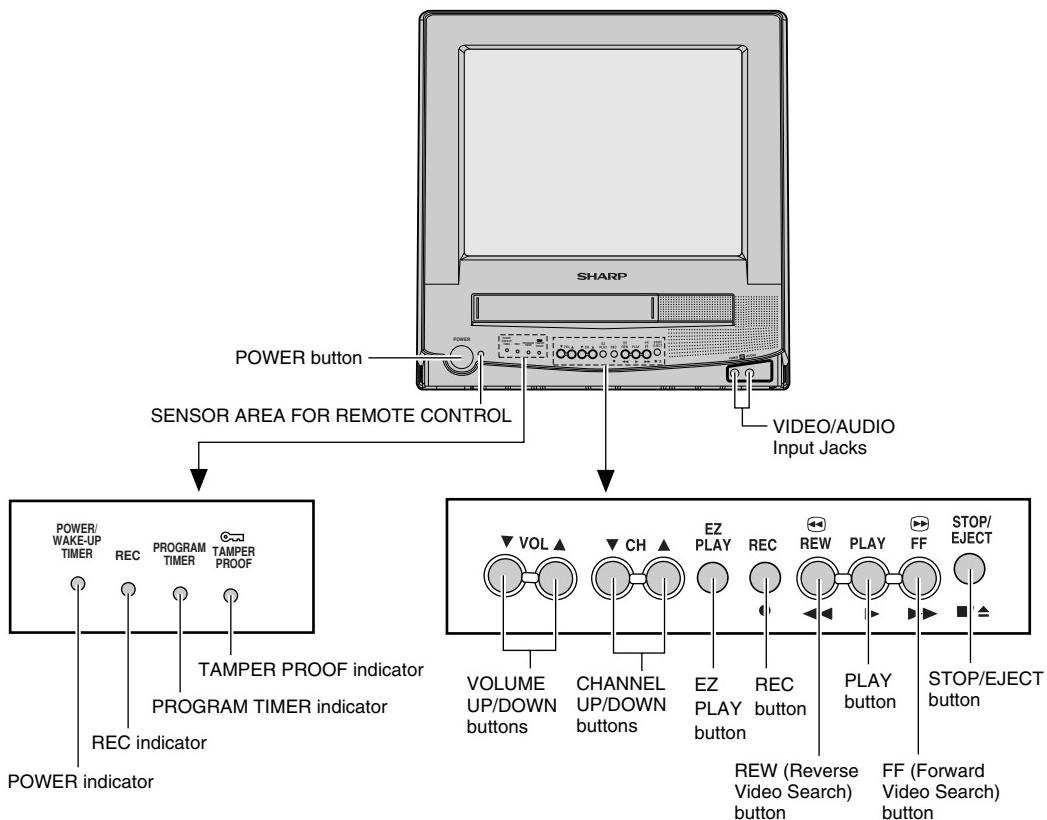
- Consult your SHARP Dealer or Service Center for the type of splitter, RF switch or combiner that might be required.

E 6

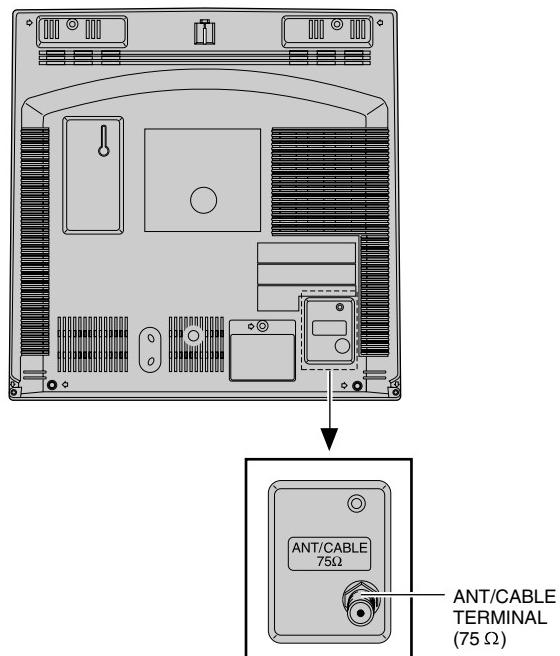


Description Of Controls

FRONT



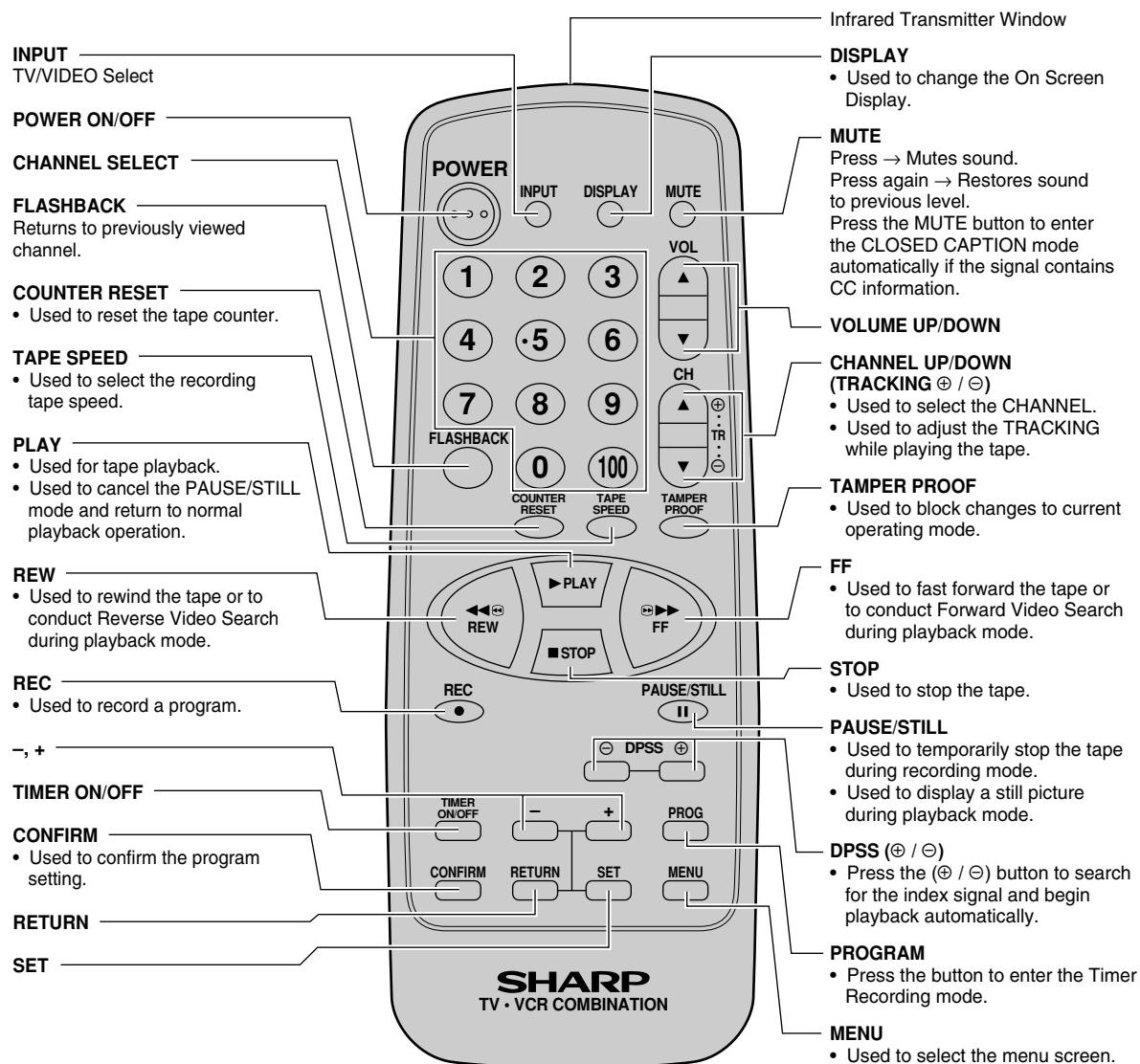
REAR



[E] 7



Location Of Control's Buttons (Remote Control)





Watching A TV Program

① POWER

- Press the POWER button to turn on the TV.
(The POWER indicator will be lit in RED.)
Sound will start instantly and picture will appear 5 to 10 seconds later.
- Press the POWER button again to turn off the TV.
(The POWER indicator will be turned off.)

② VOLUME

- Press the VOL UP (▲) button to increase the sound to the desired level, and then release.
- Press the VOL DOWN (▼) button to decrease the sound level.

■ To turn the sound off temporarily

- Press the MUTE button on the Remote Control to turn the sound off.
“MUTE” will appear on the screen to confirm that this feature is in effect.
- Press the MUTE button again to restore the sound to its previous level.

③ CHANNEL SELECTION

- The desired channel can be selected instantly by pressing the CHANNEL SELECT buttons (0 ~ 9, 100) on the Remote Control, or CHANNEL UP (▲)/DOWN (▼) buttons on the Remote Control or on the TV.
- To select cable channel numbers greater than “99”. First press “100” button on the Remote Control; then the two other numbers buttons to complete your total channel number selection.
- The selected channel number will appear on the screen.

Example:

- (1) To select channel 2 :
Press the “0” and “2” buttons.

To select channel 69 :
Press the “6” and “9” buttons.

To select channel 125 (CATV mode only) :
Press the “100”, “2” and “5” buttons.

- (2) The memorized channel selection will change in sequence from the low preset channel to the high preset channel when the CH UP (▲) button is pressed, and vice versa when the CH DOWN (▼) button is pressed after you preset the desired channels into the memory.

Note:

- For channel memory, please refer to page 13.

④ DISPLAY CALL

- Pressing the DISPLAY button on the Remote Control will change the display on the screen in the following sequence.

Note:

- When CLOSED CAPTION is turned ON, the ON SCREEN DISPLAY turns off automatically after about 3 seconds.
- For CLOSED CAPTION information, please refer to pages 11 ~ 12.

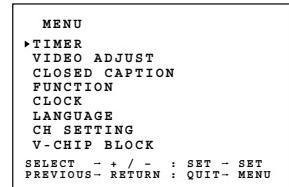
	DISPLAY
Press Once*	<ul style="list-style-type: none"> Time and Date Channel Number (Tape Operation Display) (Tape Speed Mode — SP, LP, EP) (Tape Counter)
After about 3 seconds	<ul style="list-style-type: none"> Channel Number (Tape Operation Display) (Tape Speed Mode — SP, LP, EP) (Tape Counter)
Press Twice	<ul style="list-style-type: none"> Cleans Display

Items in () will be displayed when a cassette is loaded in the VCR.

⑤ MENU FUNCTIONS

■ Calling up the Functions

- Press the MENU button on the Remote Control to call the MENU screen.
- Press the + or - button on the Remote Control to select the desired function mode. Each time that you press the + or - button, the “▶” mark moves down or up.
- Press the SET button on the Remote Control to access desired function mode.
- To leave the MENU screen, press the MENU button on the Remote Control.



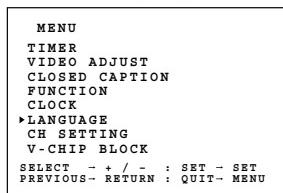
(MENU screen)

⑥ TRILINGUAL ON SCREEN DISPLAY

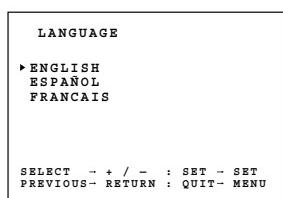
■ The language for this unit's ON SCREEN DISPLAY can be set to ENGLISH, SPANISH or FRENCH.

■ Setting the ON SCREEN DISPLAY Language

- Select “LANGUAGE” from the MENU screen by pressing + or - button, then press the SET button.



- Press the + or - button to select the language (English, Spanish or French) you wish to display, then press the SET button.





Watching A TV Program (Continued)

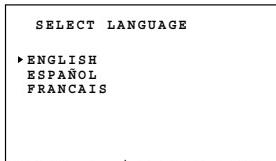
7 EZ SETUP during First Use

When you turn on the TV for the first time, it will automatically memorize the broadcast channels.

Please perform the following before pressing the power button.

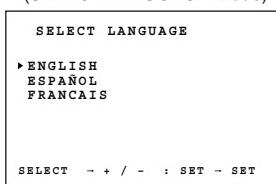
- 1) Insert the batteries into the remote control. (See page 5)
- 2) Connect the antenna cable to the TV set. (See page 6)
- 3) Plug in the AC POWER cord to the wall outlet.

- (1) Press the POWER button on the TV set or on the Remote Control to turn on the TV. The SELECT LANGUAGE mode will be displayed.

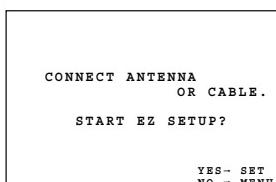


(SELECT LANGUAGE mode)

- (2) Press + or - button on the Remote Control to select "ENGLISH", "SPANISH" (ESPAÑOL) or "FRENCH" (FRANÇAIS). Then press + or - button to SET LANGUAGE.

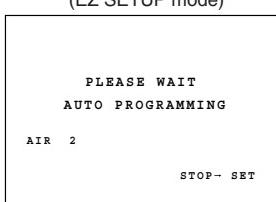


- (3) Press the SET button on the Remote Control to access EZ SETUP mode.



(EZ SETUP mode)

- (4) Press the SET button on the Remote Control.

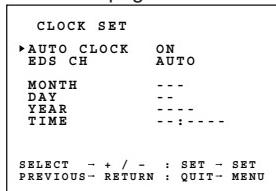


The tuner will automatically search for the broadcast and cable TV channels. (The CH No. will automatically increase when it appears.)

To cancel EZ SETUP, press the SET button on the Remote Control.

If you want to SETUP again, please refer to page 12 on SETUP.

- (5) The "CLOCK SET" screen will be displayed, then set the clock same as step (2), (3) on page 18.



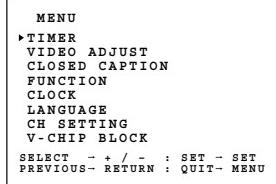
Note:

- If EZ SETUP does not memorize all the channels in your region, please refer to page 12 for more information on manual memorizing the channels using CHANNEL SETTING.
- It may be difficult to use the PRESET function when the broadcast signals are weak, the channel cycle frequency is incorrect or frequency jamming is occurring in the area. Please refer to page 13 for more information on manual memorizing the channel using CHANNEL SETTING.

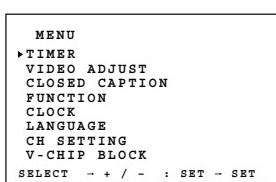
8 WAKE-UP TIMER

■ Setting the Wake-up Timer automatically turns on the TV or VCR at a preset time.

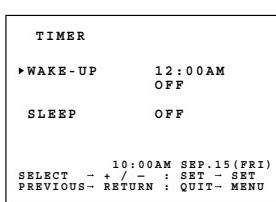
- (1) Press the MENU button on the Remote Control to call up the MENU screen.



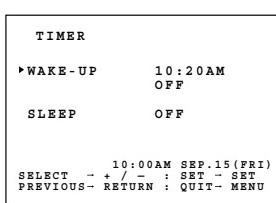
- (2) Press the + or - button on the Remote Control to select "TIMER", and press the SET button. If the clock is not set, the clock set menu will appear. Please set the clock first.



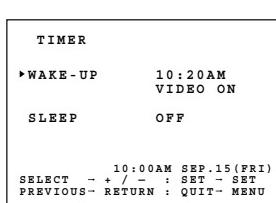
- (3) Press the + or - button to select "WAKE-UP", and press the SET button.



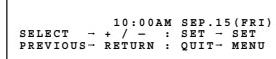
- (4) Press the Remote's + or - button to select the "hour", then press the SET button. The yellow position will move to the "minute" portion. Again, press the Remote's + or - button to select the "minute", then press the SET button.



- (5) Press the + or - button to select turning on the TV or VCR.



- (6) Press the SET button, then press the MENU button.



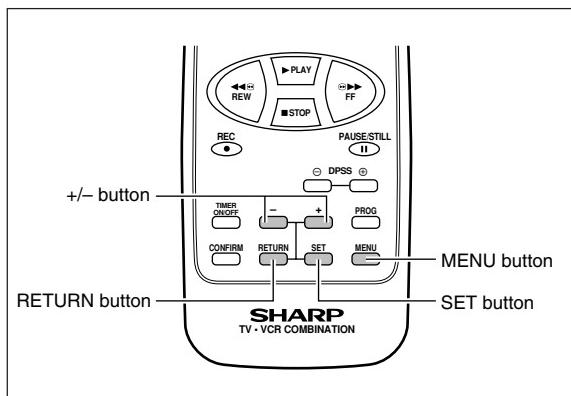
The Wake-up Timer indicator changes to green in standby mode.

Note:

- To clear the Wake-up Timer setting, select "OFF" in step (5).
- After the TV and/or VCR is on, and no operation is activated and none of its functions here been used for 2 hour period, the power will shut off as a safety feature.
- When you have selected "VIDEO ON" in step (5) and no cassette is loaded the TV turns on instead of the VCR.



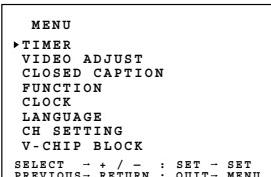
Watching A TV Program (Continued)



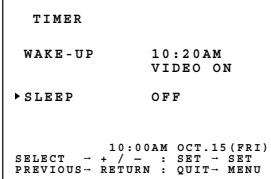
9 SLEEP TIMER

- Setting the Sleep Timer automatically turns off the power at a preset time.

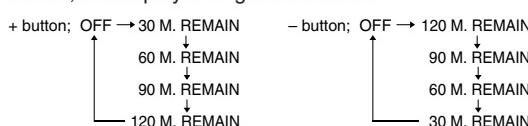
(1) Select "TIMER" from the MENU screen, and press the SET button.
If the clock is not set, the clock set menu will appear, set the clock first (refer to page 18)



(2) Press the + or − button to select "SLEEP", and press the SET button.



(3) Select the desired timer by pressing the + or − button, and press the SET button. Each time you press the + or − button, the display changes as follows:



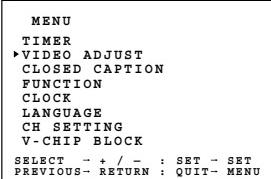
Note:

- The Sleep Timer function is cancelled if "OFF" is selected in the operation step (2).
- The Sleep Timer function is cancelled if you turn the set off by pressing the POWER ON/OFF button on the Remote Control or the front panel.

10 VIDEO ADJUST

(PICTURE, TINT, COLOR, BRIGHT, SHARP, FAVORITE COLOR)

(1) Select "VIDEO ADJUST" from the MENU screen and press the SET button.



- (2) Press the + or − button on the Remote Control to select the item you wish to adjust, then press the SET button. (Pressing the + or − button moves the "▶" mark.)

```
VIDEO ADJUST
PICTURE
TINT
COLOR
BRIGHT
SHARP
F.COLOR
RESET
SELECT - + / - : SET - SET
PREVIOUS - RETURN : QUIT - MENU
```

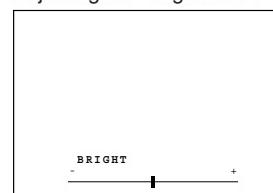
- (3) Press the + or − button to adjust the "brightness" to a favorite picture.

- (4) Press the SET button. The screen will return to the (2) above.

- To continue any additional adjustment, repeat the steps from (2) to (4) above.

- (5) Press the MENU button anytime to exit VIDEO ADJUST.

Example:
Adjusting the "brightness".



< Description of Adjustment Items >

Selected Item	+ button	- button
PICTURE	To increase contrast	To decrease contrast
TINT	Skin tones become greenish	Skin tones become purplish
COLOR	For more color intensity	For less color intensity
BRIGHT	For more brightness	For less brightness
SHARP	For more sharpness	For less sharpness
F.COLOR	Warmer picture (Whites reddish)	Cooler picture (Whites bluish)
RESET	All Video Adjustments are returned to the factory preset level.	

11 CLOSED CAPTION

■ How to set Closed Caption

- Your TV is equipped with an internal closed caption decoder. "Closed Caption" is a system which allows you to view conversations, narration, and sound effects in TV programs and home videos as subscript on your TV screen as shown below.



- Not all the programs and videos will offer closed caption. Please look for the "CC" symbol to ensure that captions will be shown.

- Closed Caption broadcast can be viewed in two modes: CAPTION and TEXT. For each mode, two channels are available, CH1 and CH2:

The [CAPTION] mode subscripts dialogues and commentaries of TV dramas and news programs while allowing clear view of the picture.

The [TEXT] mode displays over the picture other various information (such as TV program schedule, weather forecast, etc.) that is independent of the TV programs.



Watching A TV Program (Continued)

- (1) Press the Remote's MENU button to access the MENU screen.

```

    MENU
    ►TIMER
    VIDEO ADJUST
    CLOSED CAPTION
    FUNCTION
    CLOCK
    LANGUAGE
    CH SETTING
    V-CHIP BLOCK
    SELECT - + / - : SET - SET
    PREVIOUS- RETURN : QUIT- MENU
  
```

- (2) Press + or - button to move the "►" mark to "CLOSED CAPTION".

```

    MENU
    ►TIMER
    VIDEO ADJUST
    CLOSED CAPTION
    FUNCTION
    CLOCK
    LANGUAGE
    CH SETTING
    V-CHIP BLOCK
    SELECT - + / - : SET - SET
    PREVIOUS- RETURN : QUIT- MENU
  
```

- (3) Press the SET button.

```

    CLOSED CAPTION
    ►MODE          CAPTION
    DATA           CH2
    SELECT - + / - : SET - SET
    PREVIOUS- RETURN : QUIT- MENU
  
```

- (4) Press + or - button to move the "►" mark to either "MODE" or "DATA", then press the SET button.

```

    CLOSED CAPTION
    ►MODE          CAPTION
    DATA           CH2
    SELECT - + / - : SET - SET
    PREVIOUS- RETURN : QUIT- MENU
  
```

- (5) Press + or - button to change the "CLOSED CAPTION" setting.

MODE :

```

    MODE : [CAPTION]
            ↑
            [TEXT]
            ↑
            [OFF]
  
```

DATA :

```

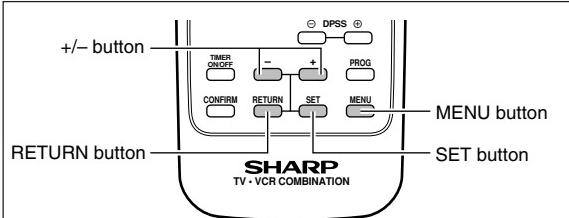
    DATA : [CH 1]
            ↑
            [CH 2]
  
```

- (6) Press the SET button.

- (7) Press the MENU button to exit.

Note:

- When receiving closed caption signals, a white line may appear in place of the captions. This is due to poor signal conditions or problems at the broadcast source, and does not indicate a problem with your TV.
- When viewing in TEXT mode, if no TEXT broadcast is being received the screen may become dark and blank. Should this occur, set the Closed Caption mode to "OFF".
- If a TV program has Closed Caption and the MUTE button is pressed, the set enters Closed Caption mode automatically. Pressing MUTE again will return the set to its previous condition.
- If any button is pressed to call up the ON SCREEN DISPLAY while viewing a CLOSED CAPTION broadcast, the closed captions will disappear momentarily.



12 PRESETTING THE CHANNELS

EZ SETUP

By operating the channel preset functions, you can preset your TV to the desired channels for viewing.

- (1) Press the Remote's MENU button to access the MENU mode.

```

    MENU
    ►TIMER
    VIDEO ADJUST
    CLOSED CAPTION
    FUNCTION
    CLOCK
    LANGUAGE
    ►CH SETTING
    V-CHIP BLOCK
    SELECT - + / - : SET - SET
    PREVIOUS- RETURN : QUIT- MENU
  
```

- (2) Press + or - button to move the "►" mark to the "CH SETTING" mode.

```

    CH SETTING
    ►EZ SETUP
    AIR/CABLE
    CH SEARCH
    CH MEMORY
    SELECT - + / - : SET - SET
    PREVIOUS- RETURN : QUIT- MENU
  
```

- (3) Press the SET button on the Remote Control to access CH SETTING mode.

```

    CH SETTING
    ►EZ SETUP
    AIR/CABLE
    CH SEARCH
    CH MEMORY
    SELECT - + / - : SET - SET
    PREVIOUS- RETURN : QUIT- MENU
  
```

- (4) Press the + or - button on the Remote Control to move the "►" to "EZ SETUP" mode.

```

    EZ SETUP
    CONNECT ANTENNA
    OR CABLE.
    START EZ SETUP?
    YES - SET
    NO - MENU
  
```

(EZ SETUP mode)

- (5) Press the SET button on the Remote Control to access EZ SETUP mode.

```

    EZ SETUP
    PLEASE WAIT
    AUTO PROGRAMMING
    AIR 2
    STOP - SET
  
```

- (6) Press the SET button. The tuner will automatically search for the broadcasting and cable TV channels. (The CH No. will automatically increase when it appears.) To cancel EZ SETUP, Press SET button on the Remote Control.

```

    EZ SETUP
    PLEASE WAIT
    AUTO PROGRAMMING
    AIR 2
    STOP - SET
  
```

- (7) Once EZ SETUP is completed, the smallest channel number memorized will be displayed.



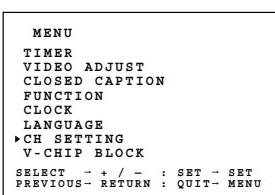
Watching A TV Program (Continued)

■ CH SETTING

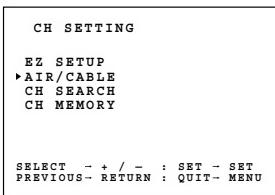
If EZ SETUP does not memorize all the channels in your region, follow the instructions below to manually memorize the channel.

① Selecting the TV Signal mode.

- (1) Select "CH SETTING" in the MENU screen by pressing + or - button, then press the SET button.



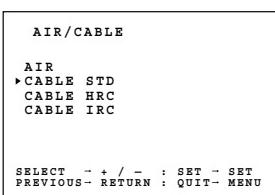
- (2) Select "AIR/CABLE" from the CH SETTING screen by pressing + or - button, then press the SET button.



- (3) Press the + or - button on the Remote Control to select the TV signal mode, then press the SET button.

VHF/UHF antenna → AIR

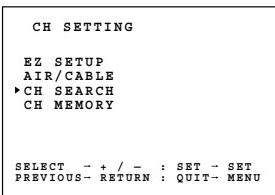
Cable TV → { CABLE STD
CABLE HRC
CABLE IRC



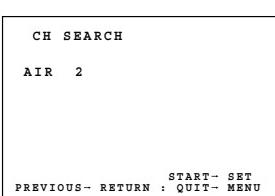
(TV signal mode)

② Auto-programming broadcast TV channels into memory.

- (1) Select "CH SEARCH" from the CH SETTING screen by pressing + or - button, then press the SET button.

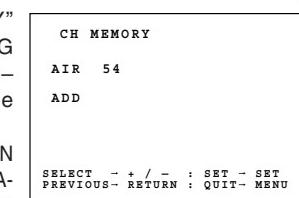


- (2) Press the SET button. The tuner will automatically cycle through available channels in your area and preset them into the memory. If all available channels are of reasonable signal strength and you prefer not to add or erase any channels from memory, presetting is completed.



③ Adding weak or additional channels from TV memory.

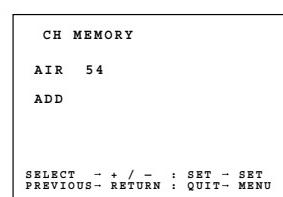
- (1) Select "CH MEMORY" from the CH SETTING screen by pressing + or - button, then press the SET button.



- (2) Use either the CH UP/DOWN (▲/▼) buttons or the CHANNEL SELECT buttons (0~9, 100) to select the desired channel. The selected channel number will appear on the screen.

- If any channel is stored in the memory, the "ADD" is displayed.
- If any channel is not stored in the memory, the "ERASE" is displayed.

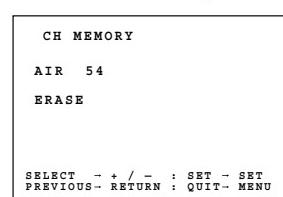
- (3) Use the + or - to select "ADD"; confirm that the "ADD" is displayed. If additional channels are to be preset, repeat step (2).



- (4) Press the SET or MENU key to exit CH MEMORY. Use the CH UP/DOWN (▲/▼) buttons to assure channel presetting is correct.

④ Erasing unwanted channels from TV memory.

- (1) Select "CH MEMORY" from the CH SETTING screen.



- (2) Select the channel to be erased.

- (3) Use the + or - to select "ERASE"; confirm that the "ERASE" is displayed. If additional channels are to be erased, repeat step (2).

- (4) Press the SET or MENU key to exit CH MEMORY. Use the CH UP/DOWN (▲/▼) buttons to assure channel(s) are erased.

Note:

- Receivable channels of your TV set are:

AIR channels —

VHF; 2 through 13,
UHF; 14 through 69.

CABLE channels —

1 (HRC and IRC mode only)
2 through 125 (STD, HRC, and IRC)



V-CHIP BLOCK

■ V-CHIP

- This function allows you to restrict TV programs and also allows you to control TV usage based on FCC data. This function is to prevent your children from watching violence or sexual scenes that may be harmful.
- Restriction of TV programs includes two characters that contain information about the program's MPAA rating and the TV Parental Guidelines. MPAA is restricted by age. TV Parental Guidelines are restricted by age and contents.
- Since a TV program may use either the MPAA rating or the TV Guidelines you should adjust both for complete control.

■ MPAA RATING

RATING		
age base	G	GENERAL AUDIENCES. All ages admitted.
	PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
	PG-13	PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
	R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
	NC-17	NO ONE 17 AND UNDER ADMITTED.
	X	X Rating is an older rating that is unified with NC-17 but may be encoded on older movie data.

• MPAA RATING (Example)

Example 1.

"PG-13" in the age based RATING is blocked, this will automatically block the high ratings "R", "NC-17", "X" also.

1. User setting

G	--
PG	--
PG-13	BLOCK
R	BLOCK
NC-17	BLOCK
X	BLOCK

2. Block table

G	Not to block
PG	Not to block
PG-13	Select block
R	Auto-block
NC-17	Auto-block
X	Auto-block

Example 2.

"R" in the age based RATING is blocked, this will automatically block the high rating "NC-17", "X" also.

1. User setting

G	--
PG	--
PG-13	--
R	BLOCK
NC-17	BLOCK
X	BLOCK

2. Block table

G	Not to block
PG	Not to block
PG-13	Not to block
R	Select block
NC-17	Auto-block
X	Auto-block

Note:

- MPAA RATING is a rating based only on age.

■ TV PARENTAL GUIDELINES

RATING		content base					
		AGE	D (Sexually Suggestive Dialog)	L (Adult Language)	S (Sexual Situation)	V (Violence)	FV (Fantasy Violence)
age base	TV-Y (All children)	[V]	-	-	-	-	-
	TV-Y7 (Direct to Older Children)	[V]	-	-	-	-	[V]
	TV-G (General Audience)	[V]	-	-	-	-	-
	TV-PG (Parental Guidance Suggested)	[V]	[V]	[V]	[V]	[V]	-
	TV-14 (Parents Strongly Cautioned)	[V]	[V]	[V]	[V]	[V]	-
	TV-MA (Mature Audience Only)	[V]	-	[V]	[V]	[V]	-

[V] : Content Rating can be set.

- : Content Rating can not be set (not normally broadcast by TV station).



V-CHIP BLOCK (Continued)

• TV-PARENTAL GUIDELINES (Example)

Example 1.1 : Age Based setting

Go through all select ratings and select unblocked for "AGE".
This will automatically unblock everything.

	AGE	D	L	S	V	FV	
TV-Y							
TV-Y7							
TV-G							
TV-PG							
TV-14							
►TV-MA							

SELECT - + / - : SET - SET
PREVIOUS - RETURN : QUIT - MENU

□:VIEW
V:BLOCK

Example 1.2 : Age Based setting

For "TV-G" select "BLOCK" for "AGE". This will automatically block the higher age ratings "TV-PG", "TV-14" and "TV-MA" as well as "TV-G". Furthermore, the content ratings "D", "L", "S", "V", "FV" are automatically blocked as well for "TV-PG", "TV-14" and "TV-MA" as well as "TV-G".

	AGE	D	L	S	V	FV	
TV-Y							
TV-Y7							
►TV-G							
TV-PG		V	V	V	V	V	-
TV-14		V	V	V	V	V	-
TV-MA		-	V	V	V	V	-

SELECT - + / - : SET - SET
PREVIOUS - RETURN : QUIT - MENU

□:VIEW
V:BLOCK

Example 2.1 : Content Based setting

For "TV-PG", "TV-14" and "TV-MA" select unblock for each content rating ("D", "L", "S", "V", "FV") by leaving "AGE" unblocked for "TV-PG", "TV-14" and "TV-MA". If you choose to unblock each one by content base.

	AGE	D	L	S	V	FV	
TV-Y							
TV-Y7							
TV-G							
TV-PG							
TV-14							
►TV-MA							

SELECT - + / - : SET - SET
PREVIOUS - RETURN : QUIT - MENU

□:VIEW
V:BLOCK

Example 2.2 : Content Based setting

For "TV-PG" select "BLOCK" for only "V" (Violence). This will automatically block the higher ratings "TV-14-V" and "TV-MA-V" ("TV-14" and "TV-MA" for Violence content only). Please note that with these settings blocking does NOT occur. If a program is rated only "TV-MA"; it must be rated "TV-MA-V" to be blocked.

	AGE	D	L	S	V	FV	
TV-Y							
TV-Y7							
TV-G							
►TV-PG					V		
TV-14					V		
TV-MA					V	V	

SELECT - + / - : SET - SET
PREVIOUS - RETURN : QUIT - MENU

□:VIEW
V:BLOCK

Example 3 : Reset an Age Based setting

For "TV-14" select again "BLOCK" for "AGE". This will again automatically block the content ratings "D", "L", "S", "V", "FV" for "TV-MA" as well as "TV-14". Please note that the lower age rating "TV-PG" did not change from its previous settings.

	AGE	D	L	S	V	FV	
TV-Y							
TV-Y7							
TV-G							
TV-PG							
►TV-14							
TV-MA		V	V	V	V	V	-

SELECT - + / - : SET - SET
PREVIOUS - RETURN : QUIT - MENU

□:VIEW
V:BLOCK

Note:

- Content ratings can be modified but only in the combinations indicated by an in the table on page 14.
- Changing a lower age rating's content setting to "BLOCK" automatically changes the same higher age rating's content setting to "BLOCK" regardless of their previous settings.
- Changing a lower rating's "AGE" setting to "BLOCK" automatically changes all higher ratings to "BLOCK" regardless of their previous settings.
- Any rating's "AGE" set to unblocked must have its content settings individually set.

[3] ADDITIONAL MODE

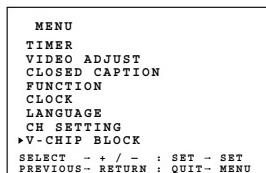
Besides the above "MPAA RATINGS" and "TV PARENTAL GUIDELINES" new rating system's data can be downloaded when they become available. (See page 17.)



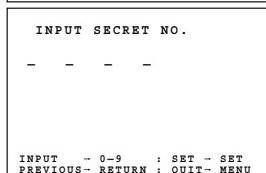
V-CHIP BLOCK (Continued)

■ MPAA RATING

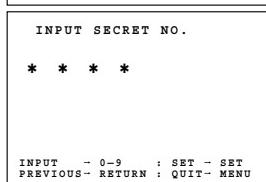
- (1) Press the MENU button. Press the + or - button to select "V-CHIP BLOCK" from the MENU screen, then press the SET button.



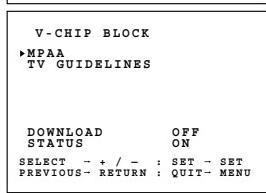
- (2) "INPUT SECRET No." will be displayed.



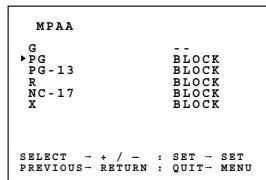
- (3) Enter a 4-digit SECRET No. using the CHANNEL SELECT, then press the SET button. If you already registered the 4-digit SECRET No., enter the same No. as registered.



- (4) Press the + or - button to select "MPAA", then press the SET button to access "MPAA".



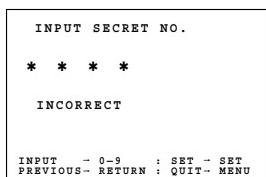
- (5) Press the + or - button to select "PG" (for EX.), then press the SET button. Press the + or - button to select "BLOCK" or "-_" (unblock), then press the SET button. If you set "PG" to "BLOCK", "PG-13", "R", "NC-17" and "X" are automatically blocked.



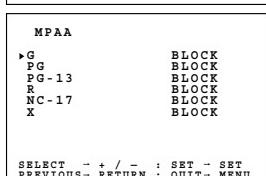
- (6) Press the MENU button to exit.

Note:

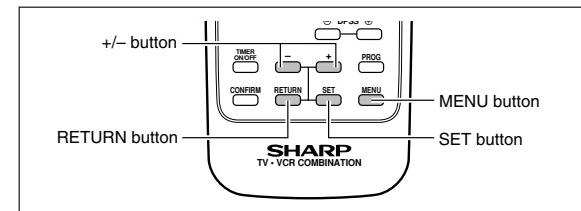
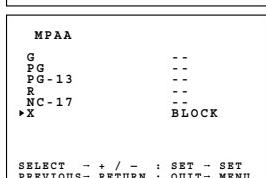
- If the wrong SECRET No. is chosen in above step (3), "INCORRECT" will be displayed. Input the right SECRET No. again in this case.



- If you set "G" to BLOCK in above step (5), all RATINGS are automatically blocked.



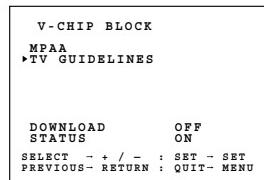
- If you set "X" to BLOCK in above step (5), "G", "PG", "PG-13", "R" and "NC-17" are not blocked.



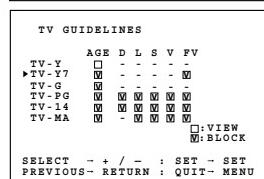
■ TV GUIDELINES

- (1) Repeat steps (1) to (3) of ■ MPAA RATING.

- (2) Press the + or - button to select "TV GUIDELINES", then press the SET button to access "TV GUIDELINES".

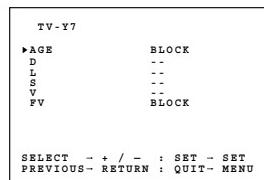


- (3) Press the + or - button to select "TV-Y7" (for EX.), then press the SET button.



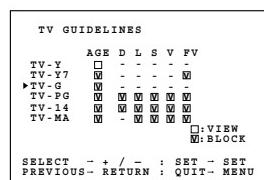
(TV GUIDELINES mode)

- (4) To change the CONTENT SETTING, Press the + or - button to select the desired rating then Press the SET button. Press the + or - button to select "BLOCK" or "-_" (unblock), then Press the SET button.



(CONTENT RATING mode)

- (5) Press the "RETURN" button to access "TV GUIDELINES".



- (6) Repeat steps (3) to (5) until all ratings and their contents are set.

- (7) Press the MENU button to exit.



V-CHIP BLOCK (Continued)

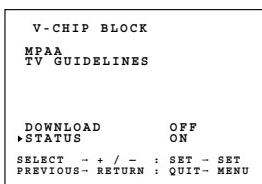
■ Turning On (Activating) the V-Chip Blocks

- (1) Repeat steps (1) to (3) of
■ MPA Rating.

- (2) Press the + or - button to select "STATUS", then press the SET button.

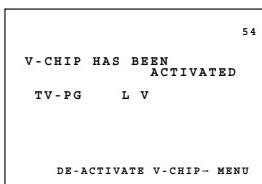
Press the + or - button to select "ON", then press the SET button to activate the V-CHIP BLOCK. (If STATUS is OFF, V-CHIP BLOCK will not operate.)

- (3) Press the MENU button to exit.



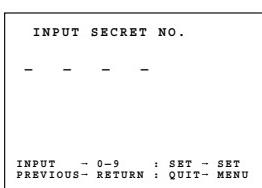
■ To cancel the V-CHIP BLOCK screen while V-CHIP BLOCK has been activated.

- (1) "V-CHIP HAS BEEN ACTIVATED" will be displayed if you view a Program containing Program Rating data the same as you configured.

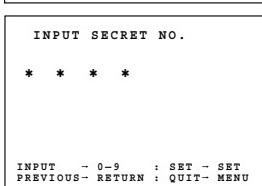


Note:

- "V-CHIP HAS BEEN ACTIVATED" will not be displayed if the STATUS is not configured to "ON".
- Press the MENU button, then "INPUT SECRET NO." will be displayed.

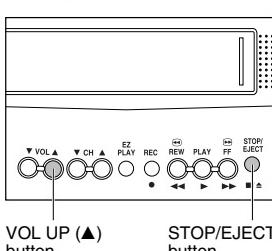


- (3) Enter the 4-digit SECRET No. using CHANNEL SELECT, then V-CHIP BLOCK temporarily will be canceled. If the wrong SECRET No. is chosen, "INCORRECT" will be displayed. Input the right SECRET No. again in this case.



■ If you forget or need to change the Secret No., clear the original Secret No. and set up new one.

- (1) Unplug the TV.
(2) Press and hold both VOL UP (▲) and STOP/EJECT buttons on the TV set.
(3) Plug in the TV and release the buttons after 2 seconds.

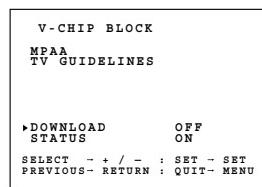


■ Additional mode (DOWNLOAD)

There will be an additional new rating system. In that case, please set up as follows. Subsequently the new rating system will set automatically.

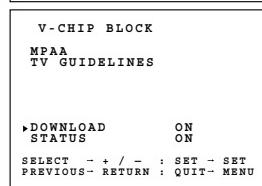
- (1) Repeat steps (1) to (2) of
■ MPA Rating.

- (2) Press the + or - button to select "DOWNLOAD", then press the SET button.



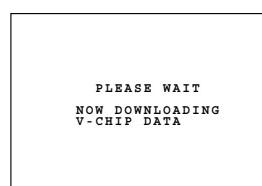
- (3) Press the + or - button to select "ON" or "OFF", then press the SET button.

- (4) Press the MENU button to exit.



■ DOWNLOAD V-CHIP DATA

- (1) If you watch the program containing "New Rating System Data", the DOWNLOAD screen will be displayed.



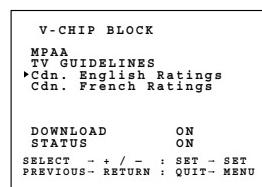
- (2) The DOWNLOAD screen will disappear, once the downloading is finished.

Note:

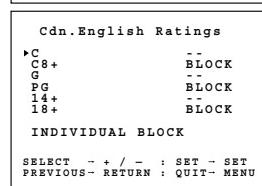
- DOWNLOAD will not start, if you do not watch a program containing "New Rating System Data".

■ How to set Additional mode (Example)

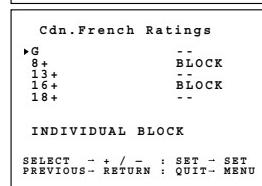
- (1) Repeat steps (1) to (2) of
■ Additional mode (DOWNLOAD).



- (2) Press the + or - button to select "Cdn. English Ratings", then press the SET button.



- (3) You can select "BLOCK" or "--" (unblock) from each RATING mode by pressing the + or - button and the SET button.



- (4) You can select "BLOCK" or "--" (unblock) from each RATING mode by pressing the + or - button and the SET button, if you select "Cdn. French Ratings" in step (2).

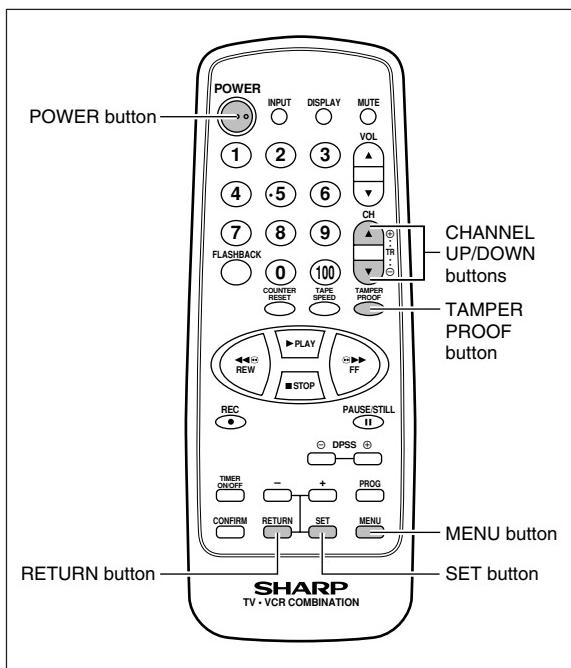
Note:

• In additional mode

Including two types (English mode, French mode), altogether you are able to download 4 different modes.



Tamper Proof Function



■ Operation Mode Lock

- If the TAMPER PROOF Lock is on during operation of this product, the current operation mode will not change until the TAMPER PROOF Lock is released, even if another operation button is pressed.

■ Power-Off Mode Lock

- If the TAMPER PROOF button is pressed to engage the TAMPER PROOF Lock while the POWER button is set to off, the power cannot be turned on even if the POWER button is pressed.

Example: Engaging the Tamper Proof Lock during playback.

- Press and hold down the TAMPER PROOF button on the Remote Control for about 3 seconds. The "TAMPER PROOF" indicator on the front panel of this product will flash, and then remain lit to indicate that the lock is engaged.
- Regardless of any operation buttons pressed, the current operation mode will not change.

The TAMPER PROOF Lock can be disengaged by the following method:

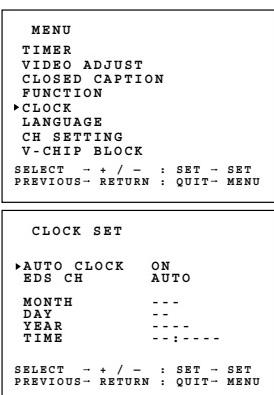
- Press the TAMPER PROOF button on the Remote Control for about 3 seconds. The "TAMPER PROOF" indicator on the front panel of this product will flash, and then go out to indicate that the lock is disengaged.

Setting The Clock

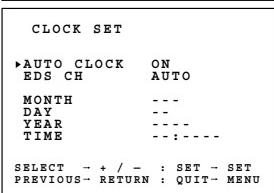
① AUTOMATIC CLOCK SETTING

- To set the clock automatically, follow the procedure below:

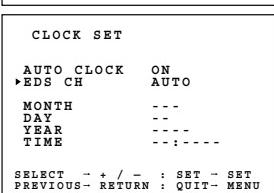
- Press the MENU button on the Remote Control. Press the +/- button to move "►" mark to "CLOCK", then press the SET button.



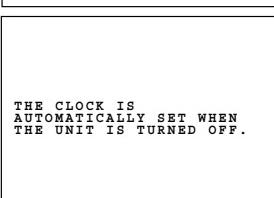
- The "CLOCK SET" screen will be displayed. Press the +/- button to select "AUTO CLOCK ON" and press the SET button.



- The "►" mark will move to "EDS CH AUTO". If the EDS channel in your area is known, use the +/- button to select the channel. Otherwise, select "AUTO". Press the SET button.



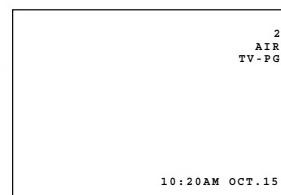
- Turn off the power. The clock is set automatically using EDS signals while the power is off.
 - If the EDS channel is selected, it takes only a few minutes for the clock to set.



- If "AUTO" is selected for clock setting, it may take a few hours to complete the clock setting as your TV has to search for the EDS channel.

(If you want to use the clock functions immediately, proceed to step (2) for MANUAL CLOCK SETTING. Please refer to page 19.)

- Press the power on. Once the Auto Clock setting is completed, the time is displayed on the bottom right corner of the TV screen.



Note:

- If you move to other location, try to preset the channels again (See page 12 for presetting the channels) and set the clock again following the procedure above.
- If the Auto Clock setting is still not completed even a few hours after turning off the power, EDS signals may not be broadcast in your area. In this case, set the clock manually. (See page 19 for manual clock setting.)
- If the antenna signal is weak, the AUTO CLOCK SETTING function may not operate.
- The AUTO CLOCK SET will not function if there is no EDS signal broadcast.
- Select a channel that carries EDS signals with the \oplus or \ominus button.

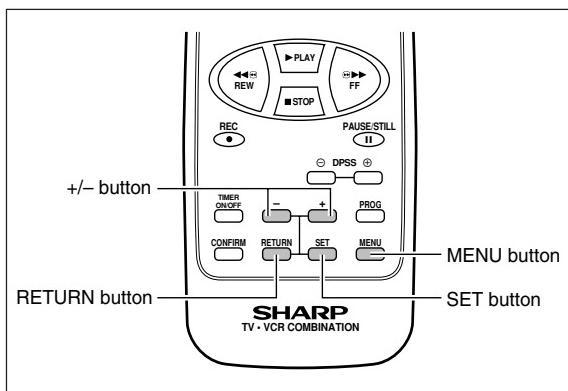
"TV" \oplus AUTO \Rightarrow 2 \Rightarrow 3 \Rightarrow 4 68 \Rightarrow 69 \Rightarrow AUTO

"CATV-STD" \oplus AUTO \Rightarrow 2 \Rightarrow 3 \Rightarrow 4 124 \Rightarrow 125 \Rightarrow AUTO

"CATV-HRC", "CATV-IRC" \oplus AUTO \Rightarrow 1 \Rightarrow 2 \Rightarrow 3 124 \Rightarrow 125 \Rightarrow AUTO



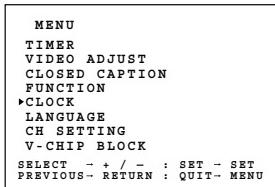
Setting The Clock (Continued)



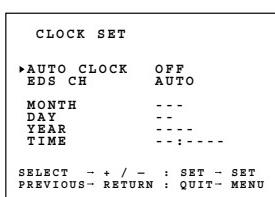
2 MANUAL CLOCK SETTING

- If the EDS signal is not available in your area, set the clock manually:

- (1) Press the MENU button on the Remote Control. Select "CLOCK" from the menu, then press the SET button.



- (2) Press the + or − button to select "AUTO CLOCK OFF", then press the SET button.



Example: Setting the clock to 10:20 a.m. on October 15, 2000.

- (3) Press the + or − button to select the "MONTH", then press the SET button. The "►" mark will move to the next item "DAY".

The month will change as follows using the + or − button.

+ button: JAN → FEB → MAR → ... NOV → DEC
↓
− button: JAN → DEC → NOV → ... MAR → FEB
↓

- (4) Press the + or − button to select the "DAY", then press the SET button. The "►" mark will move to the next item "YEAR".

The day will change as follows using the + or − button.

+ button: 1 → 2 → 3 → ... → 30 → 31
↓
− button: 1 → 31 → 30 → ... → 3 → 2

- (5) Press the + or − button to select the "YEAR", then press the SET button. The "►" mark will move to the next item "TIME".

The year will change as follows using the + or − button.

+ button: 2001 → 2002 → 2003 → ... → 1999 → 2000
↓
− button: 2001 → 2000 → 1999 → ... → 2003 → 2002
↓

- (6) Press the + or − button to select the "hour", then press the SET button. The yellow position will move to the "minute" portion.

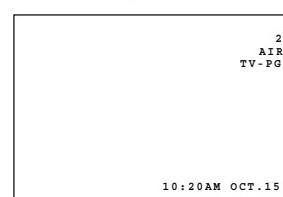
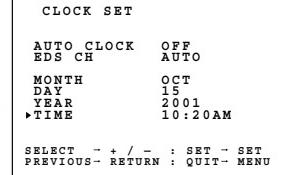
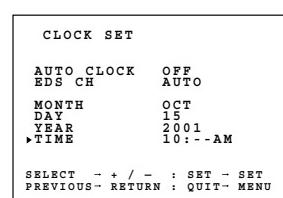
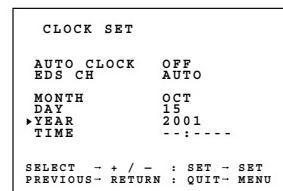
The hour will change as follows using the + or − button.

+ button: 12:-AM → 1:-AM → ... → 10:-PM → 11:-PM
↓
− button: 12:-AM → 11:-PM → ... → 2:-AM → 1:-AM
↓

- (7) Press the + or − button to select the "minute", then press the SET button.

The minute will change as follows using the + or − button.

+ button: 01 → 02 → 03 → ... → 58 → 59 → 00
↓
− button: 01 → 00 → 59 → ... → 04 → 03 → 02
↓



Note:

- To correct any erroneous data entry made during "clock" setting work.
 - Press the RETURN button on the Remote Control to return to the item you wish to correct.
 - Press the + or − button to enter the correct data.
 - To advance operation, press the SET button.
- If a button is not pressed within 60 seconds during the setting procedure, the screen will return to its previous source.
- If the TV loses power for a short period of time, the clock will have to be reset.



Playing A Cassette

■ ENERGY SAVE

This feature lets you lower the power consumption of your TV set which in turn saves you money and minimizes the impact on the environment. When this feature is turned on, it reduces the brightness of the TV to a level that consumes approximately 20% less energy than when the feature is turned off.

The reduction in brightness will be less noticeable under low room lighting conditions.

- (1) Press the MENU button and press the + or -button to select "FUNCTION" from the MENU screen. Then press the SET button.

```
MENU
  TIMER
  VIDEO ADJUST
  CLOSED CAPTION
  ▶FUNCTION
  CLOCK
  LANGUAGE
  CH SETTING
  V-CHIP BLOCK
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```

- (2) Press the + or - button to select "ENERGY SAVE", then press the SET button.
(3) Press the + or - button to the ON position, then press the SET button.

```
FUNCTION
  ▶ENERGY SAVE   ON
  BLUE SCREEN    ON
  REPEAT PLAY    OFF
  S.PICTURE      OFF
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```

■ BLUE SCREEN

This function eliminates monitor noise and mutes sound during playback of unrecorded positions of a tape or channels without signals.

- (1) Repeat step (1) of the above "ENERGY SAVE".

```
MENU
  TIMER
  VIDEO ADJUST
  CLOSED CAPTION
  ▶FUNCTION
  CLOCK
  LANGUAGE
  CH SETTING
  V-CHIP BLOCK
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```

- (2) Press the + or - button to select "BLUE SCREEN", then press the SET button.
(3) Press the + or - button to the ON position, then press the SET button.

```
FUNCTION
  ENERGY SAVE   ON
  ▶BLUE SCREEN   ON
  REPEAT PLAY    OFF
  S.PICTURE      OFF
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```

Note:

- BLUE SCREEN does not function during Still Picture and Video Search.
- BLUE SCREEN does not function during playback of a tape with noise recorded.
- BLUE SCREEN cannot be recorded.

■ AUTO REPEAT

This feature is used to repeatedly play the same cassette tape. You can select the function that rewinds and plays back the tape from the beginning automatically when the tape reaches the end, or the function that rewinds and plays back the tape from the beginning automatically when the recorded portion of the tape ends and the blank portion begins.

- (1) Repeat step (1) of the above "ENERGY SAVE".

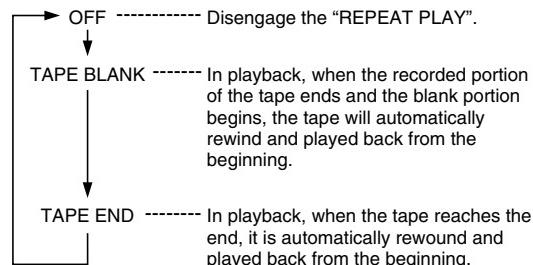
```
MENU
  TIMER
  VIDEO ADJUST
  CLOSED CAPTION
  ▶FUNCTION
  CLOCK
  LANGUAGE
  CH SETTING
  V-CHIP BLOCK
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```

- (2) Press the + or - button to select "REPEAT PLAY", then press the SET button.

- (3) Press the + or - button to select the REPEAT PLAY mode you want to use, then press the SET button.

```
FUNCTION
  ENERGY SAVE   ON
  BLUE SCREEN   ON
  ▶REPEAT PLAY   TAPE BLANK
  S.PICTURE      OFF
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```

To clear the Auto Repeat, select the OFF position in above.



■ S. PICTURE (SUPER PICTURE)

This function obtains a clearer playback screen.

- (1) Repeat step (1) of the above "ENERGY SAVE".

```
MENU
  TIMER
  VIDEO ADJUST
  CLOSED CAPTION
  ▶FUNCTION
  CLOCK
  LANGUAGE
  CH SETTING
  V-CHIP BLOCK
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```

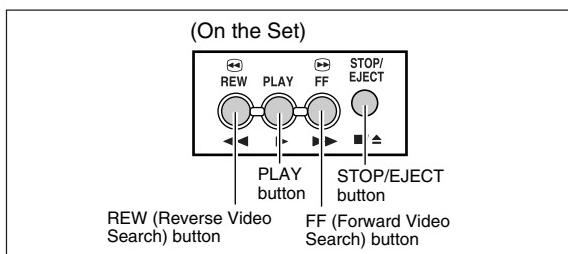
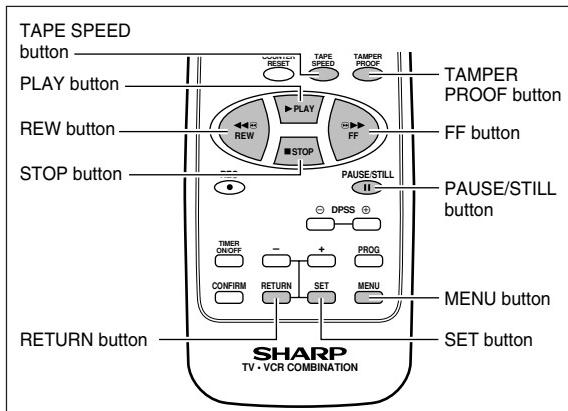
- (2) Press the + or - button to select "S. PICTURE", then press the SET button.

- (3) Press the + or - button to the ON position, then press the SET button.

```
FUNCTION
  ENERGY SAVE   ON
  BLUE SCREEN   ON
  REPEAT PLAY   TAPE BLANK
  ▶S.PICTURE     ON
SELECT - + / - : SET - SET
PREVIOUS- RETURN : QUIT- MENU
```



Playing A Cassette (Continued)

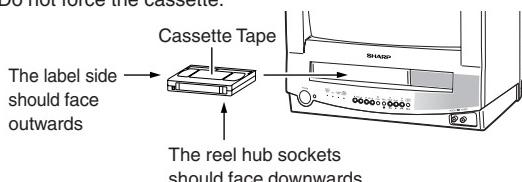


■ INSERTING A VIDEO CASSETTE

Gently insert the video cassette into the cassette compartment (use only **VHS** video cassettes). The product will turn on automatically.

If the video cassette is inserted incorrectly, the loading system will not function.

Do not force the cassette.



■ EJECTING THE CASSETTE TAPE

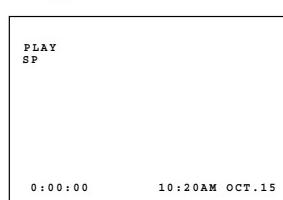
- Pressing the STOP/EJECT button on the TV/VCR set ejects the cassette tape. (When the TV/VCR set is in operation, press the STOP/EJECT button twice.)

Note:

- If the set is tilted, the cassette may not load or eject properly.

■ PLAYBACK

- With a cassette loaded, press the PLAY button. The on-screen display will appear showing the tape operation.
- To stop playback, press the STOP button.



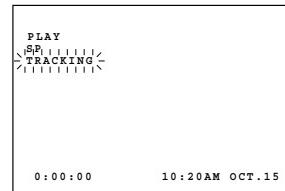
Note:

- TAPE speed (SP, LP, EP) is selected automatically for proper playback.

■ AUTOMATIC TRACKING CONTROL SYSTEM

- The Automatic Tracking Control System adjusts the tracking to its optimum setting when playback begins after inserting the tape. ("TRACKING" will flash on the TV screen during automatic tracking adjustment.)

(On the TV Screen)



Normal Picture



Poor Tracking

- The Automatic Tracking Control System will readjust the tracking during Playback mode if the recording speed changes or at the boundary between sections recorded on different VCRs.
- If noise should remain on the TV screen after the track adjustment has been completed by the Automatic Tracking Control System, use the Manual Tracking mode.
- To adjust Manual Tracking, press the TR \oplus or \ominus button on the Remote Control during Playback mode until the noise is minimized or eliminated.
- To return to Auto Tracking mode, press both the TR \oplus and \ominus buttons at the same time.

Note:

- A small mechanical noise may be heard when a cassette is loaded in the VCR and no tape operation button is pressed. This is normal. The unit is ready to immediately start playback when the PLAY button is pressed.
- If no key is pressed within 5 minutes, the VCR will return to the normal Standby mode and the mechanical noise will stop.
- If noise should remain on the TV screen or vertical movement appears during the Playback mode, Video Search mode or Still Picture mode even after the Automatic Tracking adjustment, use the Manual Tracking mode.

■ FULL AUTOMATIC PLAYBACK FUNCTION

The Full Automatic Playback Function enables you to enjoy playback with ease.

- When you insert a cassette with the erasure protection tab removed, the VCR automatically turns on and plays back the tape. When the tape reaches its end, the VCR automatically rewinds the tape and ejects it.

Note:

- If the erasure protection tab is in place, press the PLAY button after the cassette is loaded.



Playing A Cassette (Continued)

■ STILL PICTURE

- (1) Press the PAUSE/STILL button on the Remote Control during Playback mode. This will freeze the picture on your TV screen. To avoid damage to the tape, the VCR will resume normal playback after about 5 minutes of a still picture.
- (2) Press the PAUSE/STILL button during still mode for frame advance.
- (3) Press the PLAY button again to resume normal playback.

Note:

- During STILL playback, the picture may be distorted. This does not indicate a problem with your set.

■ VIDEO SEARCH

To quickly locate a desired segment the tape, use the following procedure while viewing the picture:

- (1) During Playback mode, press the FF button for forward video search, or the REW button for reverse video search. By pressing the button, the speed of the Video Search changes as below:
EP mode : 9 times faster ↔ 21 times faster
SP/LP mode : 5 times faster ↔ 7 times faster
- (2) Press the PLAY button to resume normal playback.

Note:

- During these searches, the picture on the monitor screen becomes monochrome and some picture noise appears. This is not a malfunction.

■ FAST FORWARD AND REWIND

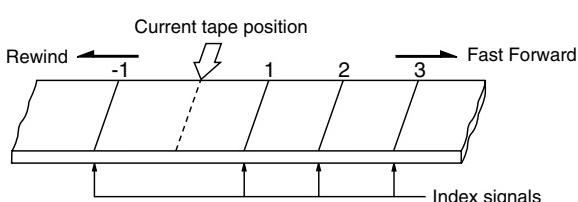
- To move through the cassette faster, press the STOP button and press the FF or REW button to fast forward or rewind the cassette.

Note:

- The picture quality in Still Picture and Video Search is best with tapes recorded in the EP mode.
 - For tapes recorded in the SP mode, the picture may be distorted.
 - Sound is muted during Still Picture and Video Search.
 - "Non-standard" tapes, i.e. tapes with small hubs and have less than 60 minutes running time, may not rewind or fast forward at full speed.
- This VCR uses **VHS** standard video signals. Use only video cassette tapes that carry the **VHS** mark.

■ DPSS (DIGITAL PROGRAM SEARCH SYSTEM)

With this feature you can quickly locate a desired section of the tape. The DPSS feature makes use of index signals to search for a specified tape segment and begin playback automatically.

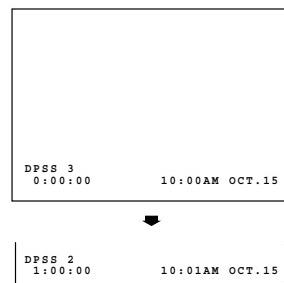


Index Signal

An index signal is automatically recorded on the tape at the start of recording.

- (1) Load a tape containing index signals into the VCR.
- (2) Select the index number of the desired program using the DPSS \oplus or \ominus button on the Remote Control. With each press of the button, the number changes. One of 19 programs can be selected in either direction (one of up to 38 programs). (Ex.: Third program after the current one.)
- (3) The search starts immediately when you press the DPSS \oplus or \ominus button. (When a signal is located, the displayed number decreases.)
- (4) When the selected index signal-encoded section is found, playback begins automatically.

(On the TV Screen)

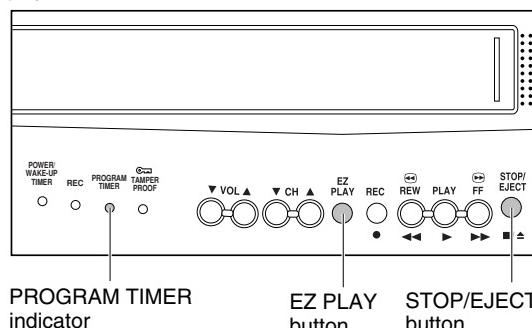


Note:

- DPSS may not function properly if the index signals are too close together (within 5 minutes of each other).
- DPSS can be cancelled by pressing the PLAY or STOP button.
- If the tape reaches its end or is rewound completely before locating the desired index signal, DPSS is cancelled.
- DPSS may not function for damaged or worn tapes.
- This DPSS function cannot be used with tapes that contain no index signals.
- The starting point of a program may vary slightly.
- DPSS does not operate during the record, timer stand-by, and timer recording modes, or when there is no cassette loaded.
- Index signals for DPSS cannot be entered manually.

■ EZ PLAY

After recording a program using the program timer, the program timer will turn off. When you press the EZ PLAY button on the unit, the POWER will turn ON automatically and the recorded tape will be rewound to the starting position and playback will be automatically start. Press the STOP/EJECT button to stop playback.



Note:

- After the program setting, when the VCR starts operating, the PROGRAM TIMER indicator turns off and the program function will be disabled.
- This VCR can search backward for up to 19 programs.
- This VCR may not be able to search and start playing back the program recorded at the beginning of the tape.
- The starting position may not be accurate.
- This function may not work for index recording of less than 5 minutes.



Recording A TV Program

RECORDING SPEEDS

Your VCR enables you to select recording tape speed (SP, EP). Although recording time is shorter, SP provides a better picture. Select the tape speed that best suits your needs.

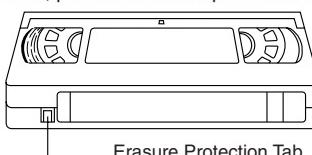
The table below shows the recording speed and recording time for the three most popular cassettes.

CASSETTE	MODE	SP (Standard Play)	EP (Extended Play)
T-60		1 hr.	3 hrs.
T-120		2 hrs.	6 hrs.
T-160		2 hrs. & 40 min.	8 hrs.

During Playback mode, the VCR automatically senses the recording speed of the video cassette and plays it back correctly.

CASSETTE ERASE PROTECTION

A **VHS** cassette has a removable tab to prevent accidental erasure of recorded material. Removing the tab prevents recording. To record on a video cassette with the tab removed, place adhesive tape over the tab opening.



Note:

- A small mechanical noise may be heard after a cassette is inserted into the VCR and no tape operation button is pressed. This is normal. The unit is ready to immediately start recording when the REC button is pressed. If no key is pressed within 5 minutes, the VCR will return to the normal standby mode and the mechanical noise will stop.

RECORDING A TV PROGRAM

PROCEDURE

OPERATION	BUTTON	ON SCREEN DISPLAY
① Select the desired channel with the CHANNEL UP/DOWN buttons or the CHANNEL SELECT buttons (0~9, 100) on the Remote Control.	• ▲ or ▼ CHANNEL UP/DOWN buttons • CHANNEL SELECT buttons (0~9, 100)	
② Make sure the erasure protection tab is intact; then insert the cassette. Press the TAPE SPEED button on the Remote Control to set the recording speed (SP or EP).	TAPE SPEED	The recording speed will change in this sequence:
③ Press the REC button. (If the erasure protection tab is removed, the cassette will be ejected.)	REC	

- To pause recording, press the PAUSE/STILL button on the Remote Control. To resume recording, press the PAUSE/STILL button again. (Pause disengages automatically after about 5 minutes to avoid damage to the tape and the VCR, and Stop mode is engaged.)

Note:

- "PAUSE" will appear on the TV screen if the PAUSE/STILL button is pressed in Stop mode. When it appears, press the STOP button to disengage the Pause mode or press the REC button to enter the REC-PAUSE mode.

TAPE COUNTER

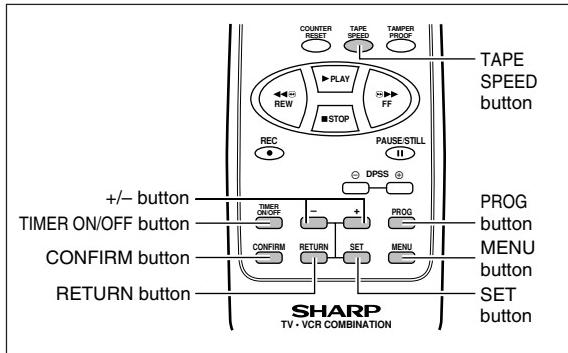
The tape counter of your TV/VCR set is a real time counter. It shows the elapsed time during Recording or Playback mode. It is useful for indexing segments on the tape for future reference. The tape counter can be displayed on the TV screen by pressing the DISPLAY button. To reset the tape counter, press the COUNTER RESET button.

Note:

- The tape counter number does not change when playing back an unrecorded portion of a tape. If the counter number stops during fast forward or rewind, that portion of the tape is unrecorded.



Recording With The Timer



RECORDING WITH THE TIMER

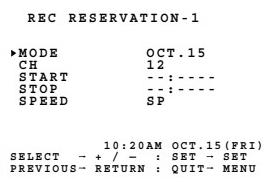
The timer has 5 program positions, which allow 5 programs to be set for automatic recording over a one month period. Each of the programs can be set to record on a daily or weekly basis until the tape reaches its end.

Setting The Program Timer

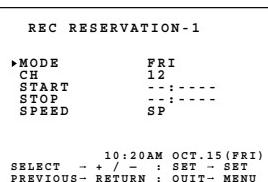
Example: To set the program in channel 10 from 4:30 p.m. to 6:30 p.m. every Friday for automatic recording in SP mode.

- (1) Load a cassette with the erasure protection tab in place.

- (2) Press the PROG button on the Remote Control. (If the time is not set at this stage, the On-screen display will show the CLOCK SET menu. See page 18.) When the Clock is not set, select "AUTO CLOCK OFF". Then set the clock manually.

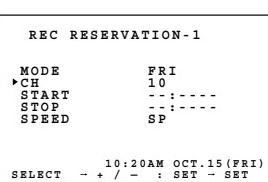


- (3) Press the + or - button on the Remote Control to select the Program mode you wish to use, then press the SET button.

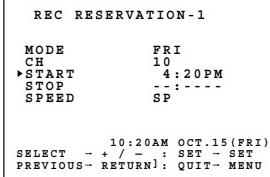


+ button; - button;

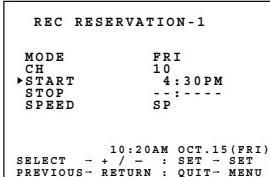
- (4) Press the + or - button on the Remote Control to select the channel number, then press the SET button.



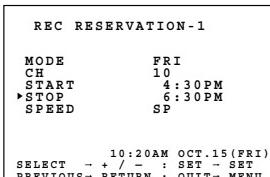
- (5) Press the + or - button on the Remote Control to select the starting time "hour", then press the SET button.



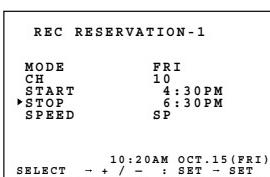
- (6) Press the + or - button on the Remote Control to select the starting time "minutes", then press the SET button.



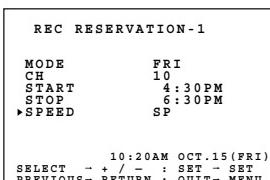
- (7) Press the + or - button on the Remote Control to select the stop time "hour", then press the SET button.



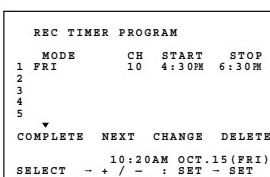
- (8) Press the + or - button on the Remote Control to select the stop time "minutes", then press the SET button.



- (9) Press the + or - button on the Remote Control to select the "Tape Speed" (SP or EP), then press the SET button.



- (10) Press the + or - button on the Remote Control to select "COMPLETE", then press the SET button. The REC TIMER is now on and the Program Timer indicator will light up.

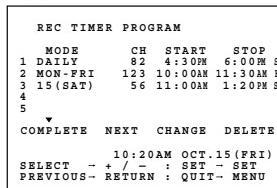


- To continue any additional program setting, press the + or - button on the Remote Control to select the "NEXT" and press the SET button. Then repeat the steps (3) through (10) above.
- To make a correction to the current program, press the Remote's + or - button to select "CHANGE" and press the + or - button to select program number, then press the SET button. Next, repeat steps (3) through (10).



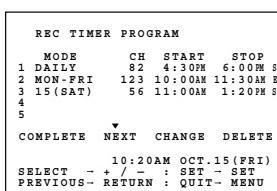
Recording With The Timer (Continued)

To confirm the program content, press the CONFIRM button on the Remote Control.



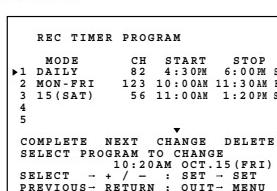
To add to the program content:

- (1) Press the CONFIRM button on the Remote Control.
- (2) Press the + or - button to select "NEXT", then press the SET button.
- (3) To add a program, follow the steps (3) through (10) of "Setting The Program Timer".



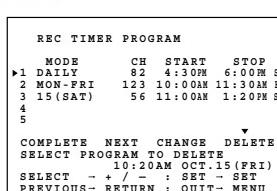
To change the program content:

- (1) Press the CONFIRM button on the Remote Control.
- (2) Press the + or - button to select "CHANGE", then press the SET button.
- (3) Press the + or - button to select the program you wish to correct, then press the SET button.
To reset the program, follow the steps (3) through (10) of "Setting The Program Timer".



To delete the program content:

- (1) Press the CONFIRM button on the Remote Control.
- (2) Press the + or - button to select "DELETE", then press the SET button.
- (3) Press the + or - button to select the program you wish to delete, then press the SET button.
- (4) Press the CONFIRM button to return to the normal screen.



Note:

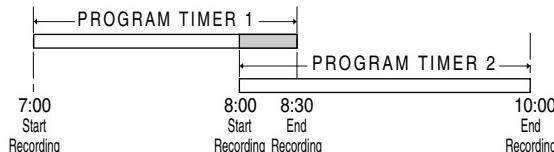
- During the Program Timer Setting (with the Program Timer indicator ON), it is impossible to change or delete the program content. To perform these operations, press the TIMER ON/OFF button on the Remote Control and turn off the Program Timer indicator.

Notes on the Timer Recording

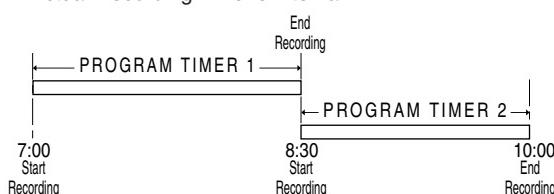
- To correct any erroneous data entry made during program timer setting work:
 - (1) Press the RETURN button on the Remote Control to return to the item you wish to change.
 - (2) Press the + or - button on the Remote Control to reset the data.
 - (3) To advance operation, press the SET button.
- If the video cassette runs out of tape before recording all the programs, the VCR will stop, eject the cassette and shut off automatically.
- If you keep disconnected the power cord, the program timer will be cancelled.
- If "complete" is selected to enter the TIMER Standby mode when there is no cassette inserted, the PROGRAM TIMER indicator flashes for 3 seconds and the message "NO TAPE" appears indicating that timer recording is not possible.
- If "complete" is selected to enter the TIMER Standby mode while a cassette with the erasure protection tab removed is inserted, the PROGRAM TIMER indicator flashes and the cassette is ejected.
- To stop timer recording, press the STOP button.
- If no buttons are pressed within 3 minutes while setting a program, the set automatically returns to the normal viewing mode.
- A program cannot be set unless all the recording input data is set.
- During program timer setting (with the Program Timer indicator ON), the video set remains inoperative. To use the video set, press the TIMER ON/OFF button on the Remote Control to turn off the Program Timer indicator. After use, load the cassette tape into the video set, press the TIMER ON/OFF button and check that the Program Timer indicator lights up.
- Be certain that the correct TV signal mode (AIR/CABLE) is selected before you enter the Timer Standby mode. Otherwise, the VCR may not record the desired TV channel.
- If two Pre-Recording Timers overlap, the End Recording Time of the PROGRAM TIMER 1 will have priority over the Start Recording Time of the PROGRAM TIMER 2.

Example:

Pre-Recording Timer's Interval



Actual Recording Timer's Interval



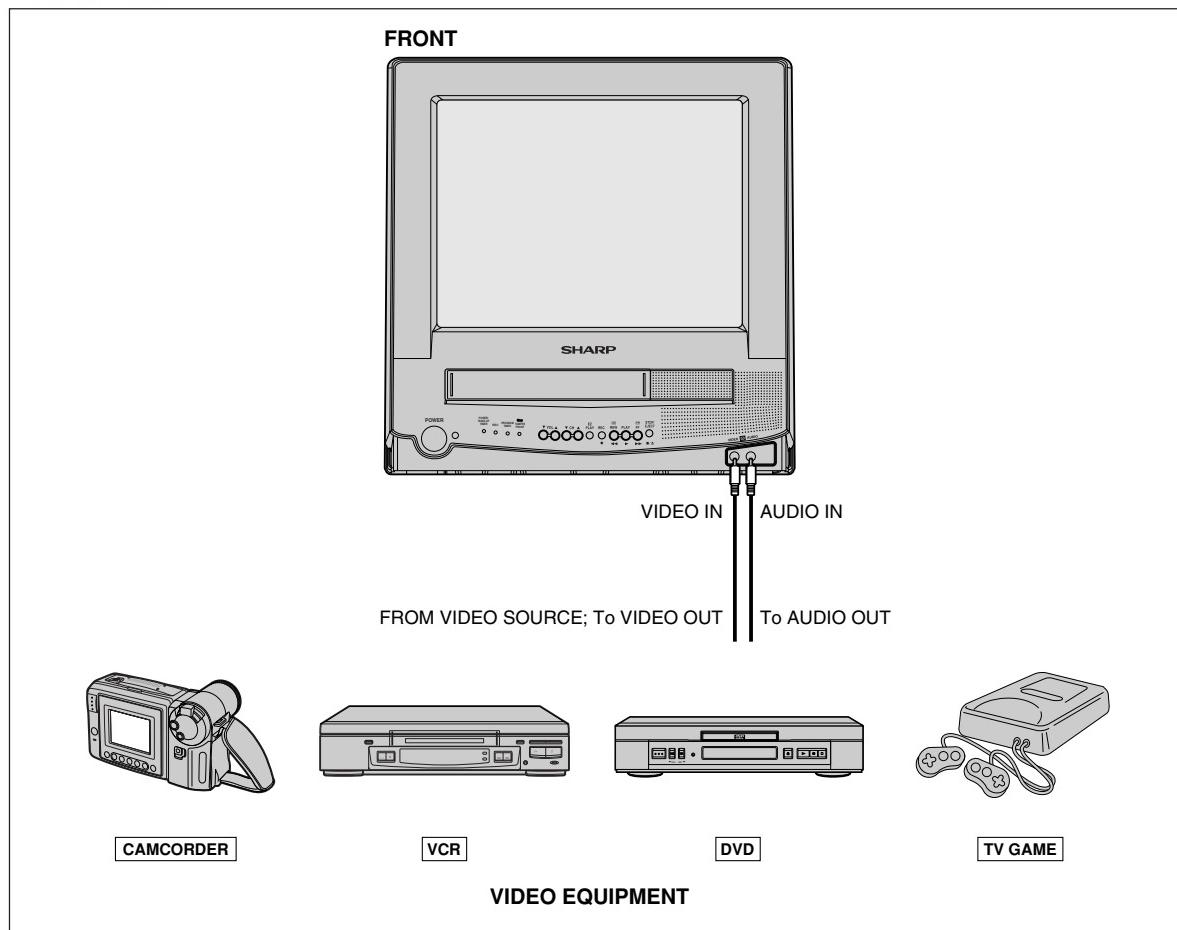


Tape Dubbing

Your TV/VCR COMBINATION can dub (copy) video material from another video device.

The connections are shown below. Begin recording on the TV and playback on the source VCR simultaneously.

Video Connection



- 1. At the Source VCR**
 - Insert a pre-recorded tape.
- 2. At the TV/VCR**
 - Insert a blank tape.
- 3. Choose Input Source**
 - Either pressing of INPUT or CHANNEL UP/DOWN (\blacktriangle/∇) buttons on the TV/VCR set or Remote Control can be used to select the channel.
(Pictures and sounds inputted through VIDEO IN/AUDIO IN can be played back on the INPUT channel.)
- 4. Play Back the Tape**
 - Press the PLAY button on the source video equipment.
- 5. Record (Copy) the Tape**
 - Press the REC button.

Note:

- When connecting video or audio equipment to the television, be sure that the power is turned off in order to prevent damage to either the television or the equipment being connected.
- It is the intent of SHARP that this product be used in full compliance with the copyright law of the United States and that prior permission be obtained from copyright owners whenever necessary.
- For detailed information on the connection and use of auxiliary equipment, refer to the instruction manuals of the equipment being used.
- The connection cables can be obtained from your local video source.



Pre-Service Call Checklist

The following conditions do not always denote trouble. Therefore, perform the checks described below before calling for service.

Problem	Suggested Solution
• No Power.	<ul style="list-style-type: none">Make sure the power cord is plugged into the outlet.Check the power outlet, fuse or circuit breaker.
• Recording is impossible.	<ul style="list-style-type: none">Cassette erasure protection tab is missing. Use another tape or place adhesive tape over the tab opening.Check if a cassette is loaded.
• Cassette is automatically ejected when either the REC or TIMER ON/OFF button is pressed.	<ul style="list-style-type: none">Cassette erasure protection tab is missing. Use another tape or place adhesive tape over the tab opening.
• No color in the TV picture or poor color reproduction.	<ul style="list-style-type: none">Make sure the antenna cable is correctly connected.Refer to PRESETTING THE CHANNELS, set the channels correctly.Check to see if the antenna cable is short circuited.Refer to VIDEO ADJUST, adjust the contrast, color and/or brightness.
• Ghosts when receiving broadcast signals.	<ul style="list-style-type: none">Mountains, large buildings, trees, etc., in the vicinity may degrade the received broadcast signal. The picture may be improved by altering the direction or height of your antenna.
• Spots on the picture when receiving broadcast signals.	<ul style="list-style-type: none">Cars, neon signs, etc., may affect the picture received. Place the antenna as far away as possible from roads and neon signs.
• No tape movement.	<ul style="list-style-type: none">Make sure the Pause/Still mode is not activated.Make sure the tape has not already reached the beginning or end.
• Snowy picture appears on the TV during playback.	<ul style="list-style-type: none">The heads may be contaminated with condensed moisture or the magnetic coating of the video tape. (In this case, the heads need to be cleaned. Ask the retailer or a Sharp approved service center.)
• Cassette cannot be loaded.	<ul style="list-style-type: none">Make sure there is no other cassette inside.Make sure the cassette is properly positioned and reinsert.
• Timer Recording does not work.	<ul style="list-style-type: none">Press the remote's TIMER ON/OFF button to activate Timer Recording. (The Set's TIMER ON/OFF indicator should glow.)
• Clock is not set automatically.	<ul style="list-style-type: none">Clock may not be set automatically in some areas. In this case, set the clock manually.
• External electrical noise interfering with TV's operation.	<ul style="list-style-type: none">Unplug the TV and plug it in again after 2 minutes.

Calling For Service

For location of the nearest SHARP Authorized Servicer, or to obtain product literature, accessories, supplies, or customer assistance, please call 1-800-BE-SHARP.



Specifications

MODEL	13VT-R100/13VT-R150	
Receiving System	NTSC	
Reception Channels		
AIR	VHF	2-13 ch
	UHF	14-69 ch
CATV	1-125 ch	
Channel Tuning	181-channel Reception PLL tuning system	
Antenna Input Impedance	VHF/UHF 75 ohm Unbalanced	
Screen Size	13" Diagonally Measured	
Terminals	Audio/Video input x 1 (Front x 1)	
Sound Output	1.0 W	
Power Source	AC 120 V, 60 Hz	
Power Consumption	65 W	
Video Cassette Format	VHS NTSC Standard	
Video Recording System	Rotary Two-Head Helical Scanning	
Number of Video Heads	2	
Video Signal Standard (Playback/Recording)	NTSC Color System	
Tape Width	12.7 mm (1/2 inches)	
Tape Speed	(SP) 33.35 mm/sec (LP) 16.68 mm/sec (Playback only) (EP) 11.12 mm/sec	
Recording/Playing Time	(SP) 120 minutes max. with T-120 tape (LP) 240 minutes max. with T-120 tape (Playback only) (EP) 360 minutes max. with T-120 tape	
Operating Temperature	5 °C to 40 °C (41 °F to 104 °F)	
Dimensions	14 ⁷ / ₈ " (W) x 15 ¹⁵ / ₆₄ " (H) x 14 ⁴⁹ / ₆₄ " (D) [378.0 mm (W) x 387.0 mm (H) x 375.0 mm (D)]	
Weight (approx.)	26.9 lbs. (12.2 kg)	

- Design and specifications are subject to change without notice.



Notes



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Notes



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Limited Warranty

CONSUMER LIMITED WARRANTY

SHARP ELECTRONICS CORPORATION warrants to the first consumer purchaser that this Sharp brand product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the Product nor to the additional excluded item(s) set forth below nor to any Product the exterior of which has been damaged or defaced, which has been subjected to improper voltage or other misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to the servicer.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIOD(S) FROM THE DATE OF PURCHASE SET FORTH BELOW. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of Sharp.

The warranties described herein shall be the sole and exclusive warranties granted by Sharp and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Sharp to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall Sharp be liable or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than an authorized servicer. Nor shall Sharp be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so that above exclusion may not apply to you.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Model Specific Section

Your Product Model Number & Description: 13VT-R100, 13VT-R150, 13 inch 2-Head TV/VCR Combination
(Be sure to have this information available when you need service for your Product.)

Warranty Period for this Product: One (1) year parts and (90) days labor. The warranty period continues for an additional one (1) year, for a total of two (2) years, with respect to the picture tube(s) in the Product for parts only. Labor and service are not provided free of charge for this additional period.

Additional Item(s) Excluded from Warranty Coverage (if any): Non-rechargeable batteries.

Where to Obtain Service: From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, call Sharp toll free at 1-800-BE-SHARP.

What to Do to Obtain Service: Ship prepaid or carry in your Product to a Sharp Authorized Servicer. Be sure to have **Proof of Purchase** available. If you ship the Product, be sure it is insured and packaged securely.

TO OBTAIN ACCESSORY OR PRODUCT INFORMATION, CALL 1-800-BE-SHARP OR VISIT www.sharp-usa.com



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